REMARKS

Favorable reconsideration of this Application as presently amended and in light of the following discussion is respectfully requested.

After entry of the foregoing Amendment, Claims 13, 14, 16, 17, 19, 20 and 22-25 are pending in the present Application. Claims 15, 18, 21 and 26-35 have been canceled without prejudice or disclaimer. Claims 13, 14, 16, 17, 19 and 20 have been amended to incorporate cancelled subject matter. No new matter has been added.

By way of summary, the Official Action presents the following issues: Claims 13-35 stand rejected under 35 U.S.C. § 102 as being anticipated by Fuller et al. (U.S. Patent No. 6,833,865, hereinafter Fuller).

REJECTION UNDER 35 U.S.C. § 102

The outstanding Official Action has rejected Claims 13-35 under 35 U.S.C. § 102 as being anticipated by Fuller. The Official Action contends that Fuller discloses all of the Applicants' claimed features. Applicants respectfully traverse the rejection.

Applicants' Claim 13 recites, *inter alia*, a camera-recorder apparatus, including:

> . . . a metadata extraction unit operable to derive image property data from said image feature vector data substantially in real time at said capture of said video images, said image property data being associated with said respective images or groups of images and including sub shot segmentation data derived from said color distribution data . . .

Fuller describes a metadata engine for use in a digital capture device. As shown in Fig. 1, a digital capture system (100) includes a visual and audio capture subsystem (200) and a content-based metadata generation engine (300). A collateral data gathering block (400), a data formatting unit (500), including optimal time-code marking (600) and data output and/or storage (700) are also provided. In operation, content may be accessed from a memory by the content-based analysis engine (300) for performing metadata extraction. The content analysis

and metadata extraction may be affected by device state event triggers coming from block (402), which automatically define video clips in response to the "record" function of the device.[1]

Conversely, in an exemplary embodiment of the Applicants' advancements, a camera recorder apparatus includes an image capture device operable to capture a plurality of video images. A storage medium functions to store the captured video images for subsequent retrieval. A feature extraction unit is operable to derive image feature vector data from said image content of at least one of the video images substantially in real time at the capture of the video images, the image feature vector data is associated with respective images and includes color distribution data. A metadata extraction unit derives image property data from the image feature vector data in real time upon capture of the video images. The image property data is associated with respective images, or groups of images, and includes sub shot segmentation data derived from the color distribution data.

As can be appreciated, the sub shot segmentation data of the Applicants' claimed advancement is derived from color distribution data and allows scene changes within a series of consecutive images to be flagged so as to assist in the editing process. Likewise, local changes of scenes, such as the entry of an actor into a scene, can be detected and flagged.

The Final Action of September 21, 2006, identifies the Summary of the Invention section of the Fuller reference as describing a number of different types of metadata. In this regard, the outstanding Action appears to suggest that instead of considering the actual discussion of metadata extraction process described by the Fuller DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS section, it is permissible to simply consider the broad summary of the invention statements at column 2 line 53 through

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[1] Fuller at column 5, lines 15-50.

column 3 line 8, of Fuller without regard to any of the actual embodiments described by Fuller. However, controlling precedent does not permit such an approach.

In this regard, the *Kotzab* decision notes that (217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000)) "the [reference] statements cannot be viewed in the abstract. Rather they must be considered in the context of the teaching of the entire reference." This is not new law, note *In re Gordon*, 221 USPQ 1125, 1127 (Fed. Cir. 1984) requiring "a fair reading of the prior art reference as a whole," and *In re Wesslau*, 147 USPQ 391, 393 (CCPA 1965) noting that "it is impermissible within the framework of §103 to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art." Thus, the attempt to take broad statements from the "SUMMARY OF THE INVENTION" of Fuller out of the context of the detailed description of is clearly without merit. As can be appreciated, this list of metadata extraction techniques which may be provided by separate, dedicated hardware, is not a disclosure of these features as an extraction performed within a video camera as recited in the amended claims. As Fuller merely discloses a clip marking function for marking start and end point of a video clip according to input from the camera image,[2] it does not disclose, or suggest, Applicants' Claim 13, or any claim depending therefrom.

Moreover, Fuller does not disclose or suggest the Applicants' sub-shot segmentation. Fuller does not disclose or suggest deriving sub-shot segmentation data from color distribution data as presently recited in amended Claim 13 or any claims depending therefrom.[3]

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[2] *See* Fuller at column 8, line 57 through column 9, line 6.
[3] See Application at page 12 lines 8-17.

Applicants' Claim 16 recites that image property data includes activity measure data derived from color distribution data, which is indicative of a change of the image content or the audio content between video images. Although the Official Action has taken the position that the facial recognition and speaker identification metadata discussed in Fuller is equivalent to activity measure data, Applicants respectfully disagree with the Official Action.

Activity measure data is not a detection of "change", which implies a significant event (such as cutting to a new face). The provision of facial recognition and speaker identification in fact does not clearly provide the ability to measure image activity data as claimed; for example in a scene with several participants on a discussion panel there may be plenty of speech and plenty of faces, but little actual image activity. By contrast in a wildlife program, there may be no faces at all, but plenty of image activity. Thus, the facial recognition is quite different from the claimed "image activity". Moreover, Fuller does not disclose using this combination of recognition mechanisms to detect either change or activity.

Referring to page 11 of the specification, it is clear that the activity measure is based upon the change in a sequence of images over a variable timeframe, and is used primarily for the purpose of an intelligent fast forward mechanism in which periods with little activity are skimmed through more quickly than those with lots of activity. As Fuller merely discloses that clips may be annotated by the user entering text manually (column 9, lines 22-27), Fuller does not disclose, or suggest, Applicants' advancements as recited in Claim 16, or any claim depending therefrom.

Applicants' amended Claim 19 recites a more detailed advancement, in which image property data includes representative image data derived from color distribution data indicative of a predominant overall content of video images. As Fuller merely discloses identifying a key frame to use as metadata to mark the beginning or end of a clip (column 8,

lines 62-65), <u>Fuller</u> does not disclose, or suggest, producing representative image metadata

that indicates the overall predominant content of the shots, as recited in Applicants' Claim 19,

or any claim depending therefrom.

Claim 22 recites a more detailed aspect of the Applicants' advancements, in which

image property data includes interview detection data indicative of an interview sequence of

the video images. The Official Action has cited speaker identification and face recognition in

support of the rejection of Claim 22 but has not identified any disclosure or suggestion that

the co-occurrence of a face and audio should be flagged as potentially representing an

interview in accordance with Applicants' Claim 22. The video images of the interview

sequence include facial images and audio signals that are associated with the video images of

the interview sequence comprising speech. As <u>Fuller</u> merely discloses speaker identification

and face identification, <u>Fuller</u> does not disclose, or suggest, interview detection data, as

presently recited in Applicants' new Claim 22, or any claim depending therefrom.

CONCLUSION

Consequently, in view of the foregoing amendment and remarks, it is respectfully submitted that the present Application, including Claims 13, 14, 16, 17, 19, 20 and 22-25, is patently distinguished over the prior art, in condition for allowance, and such action is respectfully requested at an early date.
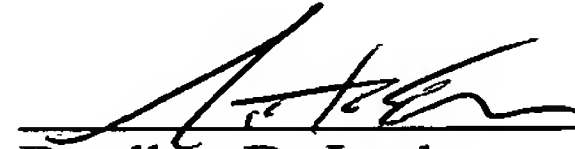
Respectfully submitted,

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